patients. For each cohort, we calculated proportions of patients with T2D using 7 individual insulin regimens (basal only, bolus only, basal-bolus, basal only with oral anti-diabetic medication (OAD), bolus only with OAD, basal-bolus with OAD, other). Chi-square test and Fisher's exact test were used to examine the association between patients' insulin regimens and the specialty of the physician who initiated their insulin use. Further we used canonical correspondence analysis to explore the association between practice specialty and patients' insulin regimens. **RESULTS:** Both the Chi-square statistics ($p < 0.0001$) and the Fisher's exact test ($p < 0.000001$) indicate that patients' insulin regimens are strongly associated with physicians' practice type. The canonical correspondence analysis suggest that 86.27% of principal inertia could be explained by a dimension on which OAD use is correspond closely with general practitioners, endocrinologist, and internist practice specialties. The canonical correspondence analysis results also indicate that physicians' choice of insulin initiation regimen was statistically significantly associate with their practice specialties. **CONCLUSION:** The practice specialty of the physicians initiating insulin is strongly associated with their patients' overall insulin regimens. Compared to other physician practice specialties, endocrinologists were most likely to prescribe basal-bolus insulin with OAD, and least likely to prescribe basal only insulin.

**PDB77**

## INVOLVEMENT OF LAY VOLUNTEERS IN TRAINING ON SELF-MANAGEMENT OF PATIENTS WITH DIABETES IN THE UNITED KINGDOM—COST IMPLICATIONS

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**OBJECTIVE:** A recent randomised clinical trial demonstrated that specialist health professionals (SHP) and volunteer peer advisors in diabetes (PAD) are equally effective in delivering training programs for self-management of diabetes, based on a validated five-item knowledge questionnaire. The objective of this study was to compare the costs of training delivered by SHP and by PAD. **METHODS:** Cost of SHP (specialist nurse) in the NHS setting, including their education/training costs, was obtained from published sources. Cost of training of PAD was based on actual resource utilization during their training: 33 sessions (including instruction and mentoring) of 90 min each were needed at cost of time of a SHP trainer per group of 15. Intervention time for groups of 15 was 6 training session of 90 min each, based on the clinical trial. Patient concordance was included in the analysis. All costs were for 2007. As many volunteers discontinue their commitment, assumptions as to their prospective engagement were tested in scenario analysis. Effects of the voluntary involvement of PAD on their own health and cost outcomes, and cost consequences of the effects of training were not considered. **RESULTS:** The cost per patient completing the training delivered by SHP was ≤45.19. The cost for PAD depended on the number of courses delivered after they have been trained: for one course scenario, the cost was ≤21.52, for 3 courses ≤7.17, and for five courses ≤4.30. The respective cost savings per 1000 patients completing the training were ≤23,673, ≤38,021, and ≤40,891. Engaging PAD instead of SHP to train 1000 patients would allow the NHS to provide training on self-management in diabetes to additional 1100–9500 patients. **CONCLUSION:** Engaging volunteer peer advisors in the training on self-management of diabetes is a highly cost-saving intervention with potentially considerable implications for public health in the UK.

**PDB78**

## MEASURING THE IMPACT OF AN EDUCATIONAL PROGRAM ON PHYSICIAN PRACTICE PATTERNS: EXPERTMD™ CV DIABETES

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**OBJECTIVE:** Controlling risk factors/using cardioprotective therapies can reduce cardiovascular (CV) morbidity/mortality in diabetic patients 1)translating this evidence into practice can be challenging, and 2) many patients receive inadequate care. In an effort to help improve the care primary care physicians provide to patients with Diabetes (DM) in Canada, the ExpertMD™ CV Diabetes program was developed. To assess the impact of the ExpertMD™ program in improving physicians' management of the CV complications of DM patients. **METHODS:** A total of 100 Canadian family physicians (FPs) voluntarily participated in the program. Physicians' management of the CV complications of patients with DM was assessed before (Pre-) and After (Post-) implementation of the ExpertMD™ program via self-audit. Clinical data parameters, gathered via case report forms submitted on-line, examined State of Care at Visit Entry and Visit Exit, Pre- and Post-Program. Twenty-four FPs recruited as a control group solely for the self-audit submitted paper-based forms to the data centre. Data were cleaned/analyzed by Groupe D'analyse, Ltee, Montréal, QC. **RESULTS:** At Visit Entry, more patients were at BP goal (<130/80) Post program in both FP groups (ExpertMD™: 34.3% vs. 29.2%, $p = 0.01$; Control: 47.5% vs. 34.3%, $p = 0.02$). At Visit Exit, Physician management of glucose (A1c <3 months, 80.8% vs. 77%, p: 0.05), cholesterol screening <12 months (93.7% vs. 89.5%, p: 0.002), ACR screening <12 months (95.6% vs. 90.5, p: 0.0004), obesity screening via waist measurement (28.2% vs. 12.5%, $p < 0.0001$) and ASA use (86.9% vs. 77.5%, $p < 0.0001$) was significantly higher Post- versus Pre- program for ExpertMD™ participants. Post- program Control FPs checked BP at office visit (100% vs. 74.9%, $p < 0.0001$), monitored ACR (92.8% vs. 83.5%, $p = 0.04$) and used ASA (96.1% vs. 82.4%, p: 0.0002) significantly more often. **CONCLUSION:** The results indicate the ExpertMD™ CV Diabetes program positively impacted physician practice patterns, enhancing the care provided to DM patients.

**PDB79**

## USING DECISION ANALYTIC METHODS TO REDUCE COSTLY LABORATORY ERRORS: A TEST OF A PROBABILISTIC AUTOVERIFICATION SYSTEM

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**OBJECTIVE:** Medical errors are a significant and costly problem in the United States. They kill more Americans each year than motor vehicle accidents, breast cancer, and AIDS (Institute of Medicine 1999). Our objective is to develop a Bayesian method to detect mismatched specimens using blood laboratory data from the National Health and Nutrition Examination Survey (NHANES) and to compare this method to an existing automated rule-based approach, LabRespond. **METHODS:** The sample consisted of 6486 participants separated into a training